

Canadian VLBI Technology Development Center Report

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Abstract The Canadian VLBI Technology Development Center (TDC) is involved in activities related to the realization of the VLBI Global Observing System (VGOS).

- Compilation of a memo on mixed mode observing issues.
- Analysis of RFI survey responses.
- Development of FPGA code for VGOS digital back ends.

In addition, NRC is involved in a number of Square Kilometer Array (SKA) related activities that have potential applications to the IVS.

1 General Information

The Canadian TDC is a collaborative effort of the National partners interested in the advancement of VLBI technology, namely the Canadian Geodetic Survey (CGS) of Natural Resources Canada (NRCan) and the Dominion Radio Astrophysical Observatory (DRAO) of the National Research Council of Canada (NRC).

- Digital signal processing including development of correlators, beam formers, and systems for pulsar processing.
- Fabrication of a light, stiff, and cost effective 15-m off-axis Gregorian top-fed composite antenna.
- Development of focal plane arrays.

2 Activities during the Past Year

The Canadian TDC is primarily focused on encouraging the realization of VGOS. This is done by Bill Petrachenko of NRCan who is the IVS Technology Development Coordinator, the chairman of the VGOS Technical Committee (VTC), and a member of the VGOS Project Executive Group (VPEG). In collaboration with others, this year's activities focused on the following areas:

- Development of the VGOS Observing Plan.
- Compilation of a comparison of VGOS recorders.

3 Future Plans

The Canadian TDC plans to continue to actively encourage the realization of VGOS.

Canadian Geodetic Survey, Natural Resources Canada

Canadian VLBI Technology Development Center

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